SPECIFICATION AMENDMENTS

On page 1, insert above line 1, insert--Priority Claim

The present application claims priority on European Patent Application 02291563.1 filed 24 June 2002.--

On page 1, above line 1, insert--Field of the Invention--

On page 1, above line 5, insert--Background of the Invention--

Paragraph at line 11 of page 1 has been amended as follows:

--~~The new~~ This process comprises hydroprocessing of said feed and preferably followed by a pour point reducing step. Such a process is for example described for a different feed in Example 3 of EP-A-776959. The fraction obtained using the ~~more~~ heavier feedstock can in turn be separated by means of distillation, at reduced pressure, into a heavy base oil grade having a kinematic viscosity at 100 °C of at least 8.5 cSt and one or more base oil grades having a kinematic viscosity at 100 °C of between 2 and 7 cSt. The heavy base oil grade, which has properties equal or close to those of a technical white oil, will be obtained in a high yield as the bottom product of the distillation..--

Paragraph at line 24 of page 1, ending at line 4 of page 2, has been amended as follows:

-- ~~Colour~~ Color problems are not readily expected when preparing products from a Fischer-Tropsch synthesis product because the Fischer-Tropsch process starts with very pure starting material and because almost no aromatic ~~colour~~ color bearing compounds are normally formed. It has been found ~~by applicant~~ that this heavy bottom distillate fraction, ~~at least in our laboratory set-up, could~~ may nevertheless have a slight yellowish ~~colour~~ color. Due to this ~~colour~~ color the base oil cannot be directly applied as medicinal white oil.--

Paragraph at line 5 of page 2 has been amended as f ollows

-- Technical and Medicinal white oils are characterized in that they have no ~~colour~~ color. Technical white oils have a Saybolt ~~colour~~ color (ASTM D-156) of greater

than +20. Medicinal white oils have a Saybolt ~~colour~~ color of greater than +25, more particularly equal to +30. Other medicinal and technical white oil specifications are a low UV adsorbance at different UV spectral ranges according to for Example FDA 178.3620 (b) and FDA 178.3620 ('c) respectively. Medicinal white oils for use in food applications further need to have a kinematic viscosity at 100 °C greater than 8.5 cSt and a 5%w boiling point greater than 391 °C.--

On page 2, above line 17, insert--Summary of the Invention--

Paragraph at line 17 of page 2 has been amended as follows:

-- Applicants have now found that by simply contacting a heavy bottom fraction, which does not meet the required specifications for either the technical or medicinal white oil, with a heterogeneous adsorbent, a medicinal or technical white oil ~~can~~ may be obtained. The invention is therefore directed to the preparation of medicinal white oil or a technical white oil from a Fischer-Tropsch derived paraffinic distillate bottom product, wherein said bottom product is contacted with a heterogeneous adsorbent.--

On page 2, above line 27 insert--Detailed Description of the Invention--

Paragraph at line 3 of page 3 has been amended as follows:

-- In general, activated carbon is a microcrystalline, nongraphitic form of carbon, which has been processed to develop internal porosity due to which it has a large surface area. Activated carbons which have been found particularly suitable, are those having a surface area (N_2, BET method) in the range from 500 to 1500 m^2/g, preferably from 900 to 1400 m^2/g, and a Hg pore volume in the range from 0.1 to 1.0 ml/g, preferably from 0.2 to 0.8 ml/g. ~~With the~~ The expression "Hg pore volume" ~~is meant~~ means the pore volume as determined by mercury porosimetry. Very good results have been obtained with activated carbons which additionally have a micropore size distribution of 0.2 to 2 nm with an average of 0.5 to 1 nm, a pore size distribution (Hg porosimetry) in the range from 1 to 10,000 nm, preferably from 1 to 5,000 nm, and a total pore volume as determined by nitrogen porosimetry in the range from 0.4 to 1.5 ml/g, preferably from 0.5 to 1.3 ml/g. Other preferred physical characteristics include an apparent bulk density of from 0.25 to

0.55 g/ml, a particle size of from 0.4 to 3.5 nm, preferably 0.5 to 1.5 nm, and a bulk crushing strength of at least 0.8 MPa, preferably at least 1.0 MPa. Examples of suitable commercially available activated carbons include Chemviron type, Chemviron F-400 (FILTRASORB 400), DARCO GCL 8*30 and DARCO GCL 12*40 (FILTRASORB and DARCO are trade marks).--

Paragraph at line 29 of page 3, ending at line 12 of page 4, has been amended as follows:

-- The activated carbon used in the process according to the present invention is preferably dry activated carbon. This means that the water content of the activated carbon should be less than 2% by weight, preferably less than 1% by weight and more preferably less than 0.5% by weight, based on total weight of activated carbon. This usually means that the activated carbon has to be dried first before application in the process of the present invention. Drying ~~can~~ may either be performed ex situ or in situ via conventional drying procedures known in the art. Examples of suitable drying procedures are those wherein activated carbon is dried at a temperature in the range of from 100 to 500 °C for 1 to 48 hours in a nitrogen atmosphere. In case of applying a fixed bed of activated carbon, in situ drying the activated carbon, i.e. drying after the activated carbon has been packed into a bed, is preferred.--

Paragraph at line 29 of page 4, ending at line 14 of page 5, has been amended as follows:

-- High yields of medicinal or technical white oil may ~~can~~ be achieved ~~with the following process. Process to prepare a medicinal white oil or technical white oil by~~ the process comprising:

(a) hydrocracking/hydroisomerisating a Fischer-Tropsch derived feed, wherein weight ratio of compounds having at least 60 or more carbon atoms and compounds having at least 30 carbon atoms in the Fischer-Tropsch derived feed is at least 0.2 and wherein at least 30 wt% of compounds in the Fischer-Tropsch derived feed have at least 30 carbon atoms;

(b) separating the product of step (a) into one or more distillate fraction(s) of lower boiling fractions and a broad range base oil precursor fraction;

(c) performing a pour point reducing step to the broad range base oil precursor fraction obtained in step (b);

(d) isolating a heavy bottom distillate fraction by distilling the product of step (c); and,

(e) contacting said bottom distillate fraction with a heterogeneous adsorbent..--

Paragraph at line 29 of page 5, ending at line 10 of page 6, has been amended as follows:

--The initial boiling point of the Fischer-Tropsch derived feed may range up to 400 °C, but is preferably below 200 °C. Preferably at least compounds having 4 or less carbon atoms and compounds having a boiling point in that range are separated from a Fischer-Tropsch synthesis product before the Fischer-Tropsch synthesis product is used as a Fischer-Tropsch derived feed in step (a). The Fischer-Tropsch derived feed as described in detail above will for the greater part comprise of a Fischer-Tropsch synthesis product, which has not been subjected to a hydroconversion step as defined according to the present invention. In addition to this Fischer-Tropsch product ~~also~~ other fractions may also be part of the Fischer-Tropsch derived feed. Possible other fractions may suitably be any high boiling fraction obtained in step (b).--

Paragraph at line 19 of page 6 has been amended as follows:

--. The Fischer-Tropsch derived feed and the resulting waxy raffinate product will contain no or very little ~~sulphur~~ sulfur and nitrogen containing compounds. This is typical for a product derived from a Fischer-Tropsch reaction, which uses synthesis gas containing almost no impurities. ~~Sulphur~~ Sulfur and nitrogen levels will generally be below the detection limits, which are currently 5 ppm for ~~sulphur~~ sulfur and 1 ppm for nitrogen.--

Paragraph at line 9 of page 7 has been amended as follows:

-- The hydrocracking/hydroisomerisation reaction of step (a) is preferably performed in the presence of hydrogen and a catalyst, which catalyst ~~can~~ may be chosen from those known to one skilled in the art as being suitable for this reaction. Catalysts for use in step (a) typically comprise an acidic functionality and a hydrogenation/dehydrogenation functionality. Preferred acidic functionalities are refractory metal oxide carriers. Suitable carrier materials include silica, alumina, silica-alumina, zirconia, titania and mixtures thereof. Preferred carrier materials for inclusion in the catalyst for use in the process of this invention are silica, alumina and silica-alumina. A particularly preferred catalyst comprises platinum supported on a silica-alumina carrier. If

desired, the acidity of the catalyst carrier may be enhanced by applying a halogen moiety, in particular fluorine, or a phosphorous moiety to the carrier. Examples of suitable hydrocracking/hydroisomerisation processes and suitable catalysts are described in WO-A-0014179, EP-A-532118 and the earlier referred to EP-A-776959.--

Paragraph at line 30 of page 7, ending at line 13 of page 8, has been amended as follows:

-- Preferred hydrogenation/dehydrogenation functionalities are Group VIII metals, such ~~a~~ as nickel, cobalt, iron, palladium and platinum. Preferred are the noble metal Group VIII members, palladium and more preferred platinum. The catalyst may comprise the more preferred noble metal hydrogenation/dehydrogenation active component in an amount of from 0.005 to 5 parts by weight, preferably from 0.02 to 2 parts by weight, per 100 parts by weight of carrier material. A particularly preferred catalyst for use in the hydroconversion stage comprises platinum in an amount in the range of from 0.05 to 2 parts by weight, more preferably from 0.1 to 1 parts by weight, per 100 parts by weight of carrier material. The catalyst may also comprise a binder to enhance the strength of the catalyst. The binder ~~can~~ may be non-acidic. Examples are clays and other binders known to one skilled in the art.--

Paragraph at line 4 of page 9 has been amended as follows:

-- In step (b) the product of step (a) is preferably separated into one or more distillate fractions, a base oil precursor fraction having preferably a T10 wt% boiling point of between 300 and 450 °C. A heavy fraction may be separated from the product of step (a) to adjust the resultant viscosity of the medicinal or technical white oil. If no heavy fraction is removed the kinematic viscosity at 100 °C of the white oil may be well above 15 cSt. By adjusting the amount and cut point at which the said heavy fraction is separated from the effluent of step (a) medicinal or technical white oils ~~can~~ may be obtained having a kinematic viscosity at 100 °C ranging from 6 cSt cSt to above 25 cSt.--

Paragraph at line 17 of page 9 has been amended as follows:

-- If a heavy fraction is separated, then the T90 wt% boiling point of the base oil precursor fraction will preferably be between 350 and 550 °C. The separation is preferably performed by means of a first distillation at about atmospheric conditions, preferably at a pressure of between 1.2-2 bara, wherein the gas oil product and lower boiling fractions,

such as naphtha and kerosine fractions, are separated from the higher boiling fraction of the product of step (a). If a high boiling fraction is removed from the product of step (a) as described above, then this higher boiling fraction, of which suitably at least 95 wt% boils above 370 °C, is further separated in a vacuum distillation step wherein a vacuum gas oil fraction, the base oil precursor fraction and the optional higher boiling fraction are obtained. The vacuum distillation is suitably performed at a pressure of between 0.001 and 0.05 bara.--

Paragraph at line 1 of page 10 has been amended as follows:

-- In step (c) the base oil precursor fraction obtained in step (b) is subjected to a pour point reducing treatment. ~~With a~~ A pour point reducing treatment ~~is understood every~~ may be any process wherein the pour point of the base oil is reduced by more than 10 °C, preferably more than 20 °C, more preferably more than 25 °C. The pour point reducing treatment is preferably performed by means of a so called catalytic dewaxing process.--

Paragraph at line 9 of page 10, ending at line 3 of page 11, has been amended as follows:

-- The catalytic dewaxing process ~~can~~ may be performed by any process wherein in the presence of a catalyst and hydrogen the pour point of the base oil precursor fraction is reduced as specified above. Suitable dewaxing catalysts are heterogeneous catalysts comprising a molecular sieve and optionally in combination with a metal having a hydrogenation function, such as the Group VIII metals. Molecular sieves, and more suitably intermediate pore size zeolites, have shown a good catalytic ability to reduce the pour point of the base oil precursor fraction under catalytic dewaxing conditions. Preferably the intermediate pore size zeolites have a pore diameter of between 0.35 and 0.8 nm. Suitable intermediate pore size zeolites are mordenite, ZSM-5, ZSM-12, ZSM-22, ZSM-23, SSZ-32, ZSM-35 and ZSM-48. Another preferred group of molecular sieves are the silica-aluminaphosphate (SAPO) materials of which SAPO-11 is most preferred as for example described in ~~US-A-4859311~~ US Pat No. 4859311. ZSM-5 may optionally be used in its HZSM-5 form in the absence of any Group VIII metal. The other molecular sieves are preferably used in combination with an added Group VIII metal. Suitable Group VIII metals are nickel, cobalt, platinum and palladium. Examples of possible combinations are Ni/ZSM-5, Pt/ZSM-23, Pd/ZSM-23, Pt/ZSM-48 and Pt/SAPO-11. Further details and examples of suitable molecular sieves and dewaxing conditions are for example described

in WO-A-9718278, ~~US-A-5053373~~ U.S. Pat No. 5053373, ~~US-A-5252527~~ US Pat No. 5252527 and ~~US-A-4574043~~ U.S. Pat No. 4574043. --

Paragraph at line 4 of page 11has been amended as follows:

-- The dewaxing catalyst suitably also comprises a binder. The binder ~~can~~ may be a synthetic or naturally occurring (inorganic) substance, for example clay, silica and/or metal oxides. Natural occurring clays are for example of the montmorillonite and kaolin families. The binder is preferably a porous binder material, for example a refractory oxide of which examples are: alumina, silica-alumina, silica-magnesia, silica-zirconia, silica-thoria, silica-beryllia, silica-titania as well as ternary compositions for example silica-alumina-thoria, silica-alumina-zirconia, silica-alumina-magnesia and silica-magnesia-zirconia. More preferably a low acidity refractory oxide binder material which is essentially free of alumina is used. Examples of these binder materials are silica, zirconia, titanium dioxide, germanium dioxide, boria and mixtures of two or more of these of which examples are listed above. The most preferred binder is silica.--

Paragraph at line 22 of page 11, ending at line 5 of page 12, has been amended as follows:

- -A preferred class of dewaxing catalysts comprise intermediate zeolite crystallites as described above and a low acidity refractory oxide binder material which is essentially free of alumina as described above, wherein the surface of the aluminosilicate zeolite crystallites has been modified by subjecting the aluminosilicate zeolite crystallites to a surface dealumination treatment. A preferred dealumination treatment is by contacting an extrudate of the binder and the zeolite with an aqueous solution of a fluorosilicate salt as described in for example ~~US-A-5157191~~ US Pat No. 5157191 or WO-A-0029511. Examples of suitable dewaxing catalysts as described above are silica bound and dealuminated Pt/ZSM-5, silica bound and dealuminated Pt/ZSM-23, silica bound and dealuminated Pt/ZSM-12, silica bound and dealuminated Pt/ZSM-22, as for example described in WO-A-0029511 and EP-B-832171.--

Paragraph at line 1 of page 13 has been amended as follows:

-- The invention is further also directed to a medicinal white oil having a kinematic viscosity at 100 °C of more than 8.5 cSt, a non-cyclic isoparaffins content of between 80 and 98 wt%, a Saybolt ~~colour~~ color of +30, Ultra violet adsorption spectra

values as measured by ASTM D 2269 of less than 0.70 in the 280-289 nm spectral band, of less than 0.60 in the 290-299 nm spectral band, of less than 0.40 in the 300-329 nm spectral band and of less than 0.09 in the 330-380 nm spectral band as according to FDA 178.3620 ('c).--

Line 1 of Table 2, column 6, has been amended as follows:

-- Saybolt ~~colour~~ color

On page 16, above line 1, insert --We claim:--